Report to the Collaborative Stakeholder Group – for Agreement and Approval

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Date:	3 December 2015
To:	Collaborative Stakeholder Group
From:	Chairperson – Bill Wasley
Subject:	Principles and options for managing within limits and CSG sub-group report back from a meeting on 18th November.
Section:	**Agreement and Approval**

Disclaimer
This report has been prepared by Waikato Regional Council policy advisors for the use of Collaborative Stakeholder Group Healthy Rivers: Wai Ora Project as a reference document and as such does not constitute Council's policy.

1 Purpose

The purpose of this report is for Collaborative Stakeholder Group (CSG) to:

1. Agree on some principles for managing within limits, and use these to assess and add to the broad options proposed by policy staff in this report, and;
2. Receive a summary of work done to date by the CSG sub-group including a report-back from the fourth meeting of CSG sub-group on 18th November.

Recommendations:

1. That the report [Principles and options for managing within limits and CSG sub-group report back from a meeting on 18th November] (Doc #3625208 dated 3 December 2015) be received, and

2. That the CSG confirm that the CSG sub-group which met on 18th November 2015 (representatives for dairy, drystock, rural professionals, Māori interests, rural advocacy, energy, community) have considered and given the CSG a sufficient overview in this report of information discussed on the subcatchment contaminant load, land use and land ownership received from the Technical Leaders Group and WRC staff.

3. That the next step toward CSG recommendations on responsibility for contaminant reductions in the 2016 plan change, is to identify and discuss some principles and broad options for how to manage within limits, in a CSG discussion on 9th -10th December 2015 that results in:
    a. Some 'Managing within limits' principles that are based on sub-group discussions, CSG's policy selection criteria and a July 2015 Waikato River Iwi

paper presented to the CSG.

b. Broad options to deliver on principles
c. Developing up the options over the next few CSG meetings, including how property plans and catchment-wide rules fit in, so that
d. By the end of the January 28th-29th 2016 CSG meeting, the CSG will have enough information to do a focused sector consultation in February about what the new policy and rule approach might mean for directly affected landholders.

2 Introduction

This report is in two parts. First it sets out some ideas and analysis (Section 3) to assist the CSG's discussion on the staged approach to achieving the Vision and Strategy. This part of the report takes a step back from the detail about who takes responsibility for contaminant reductions in the 2016 plan change. Instead, we propose that the CSG should take stock of where the sub-group has got to, policy selection criteria and information from Waikato River iwi, and use this thinking to identify and discuss some principles and broad options for how to manage within limits.

The second part of this report (Section 4) summarises work done to date by the CSG sub-group. It goes back to ideas raised by the sub-group several meetings ago. It also summarises information from the Technical Leaders Group on the modelled spatial distribution of contaminant loads that was discussed at the fourth meeting of CSG sub-group on 18th November and then by CSG at their 23rd November meeting.

Useful background reading

There have been a number of CSG workshops and optional meetings where important information has been presented and discussed. These include the CSG sub-group for nutrient management/overseer and the 'mitigations workshop' where TLG presented valuable information about the land-water model and mitigations used in the economic model. The most relevant background reading is:

1. Waikato River Iwi paper dated July 2015 and entitled "Outcome statement and principles for implementing Te Ture Whaimana – the Vision and Strategy for the Waikato and Waipa Rivers". Presented to CSG on 2-3rd July 2015.
2. CSG sub-group meeting #3 Report back. This is a useful overview on some of the technical information being used by the CSG (contaminant load data on portal, and mitigations workshop 21 October) and key points made by the sub-group about how they could use the technical information. Report to CSG 23rd-24th November 2105 entitled "Document number 3605178.
3. Report to CSG entitled "Information on number of farms, area by land use and area by land cover in the Waikato and Waipa river catchment" Report to CSG 23rd-24th November 2015. Document number 3615475. This report accompanied Maps showing extent of Maori-held land as known by WRC in October 2015.

3 Managing within limits

The following section proposes that the CSG take stock of where the sub-group has got to, policy selection criteria, information from Waikato River iwi, and use this thinking to identify and discuss some principles and broad options for how to manage within limits.

3.1 Summary of what we know

The following simple list is a restatement of facts already covered by the CSG sub-group. TLG members have contributed to these discussions.

a. The catchment is over allocated from a water quality point of view. There is already more nitrogen, phosphorus, E.coli and sediment in water bodies in the catchment than can be assimilated and still meet water body values.

b. To achieve water quality improvement, the upwards creep of contaminant discharges entering water have to stop, and then decrease.

c. Requiring landholders to operate under Good Management Practice will not get the decrease in discharges needed to meet CSG's scenario 1.

d. An equitable solution for one person or sector is not likely to be equitable from another person's point of view.

e. While River Iwi have provided the CSG with an outcome statement and principles, there is no single 'iwi position' on what is considered to be fair and equitable allocation. The five individual River iwi are likely to have slightly different views depending on their aspirations and land holdings within their rohe.

f. The location of contaminant discharges in the catchment makes a difference to water quality. Spatial variability is important, but using this in rules to require landholders located in some sub-catchments to take more action than others can create complicated policy that generates perverse outcomes, and is likely to require more certainty about where and how to set the requirements on individuals, than we have right now.

3.2 Making decisions under uncertainty

In the last few months, the CSG has received a large amount of information about future scenarios and policy options. More information is on its way. For instance, the CSG has requested more detail about land ownership and land use. Completed reports on point source discharges, water quality, social and cultural flow on implications of alternative scenarios will also soon be available[1].

The complexity of the Healthy Rivers Wai Ora project means the CSG will be making recommendations in the face of uncertain information. Other regions in New Zealand have undertaken water limit setting processes in fully allocated catchments with high stakes for landholders and the wider community[2]. Norton et al (2015, in prep.), note that there are three fundamental challenges with making decisions using uncertain information. These arise from:

1. The difficulty of defining the importance of a risk for one value relative to risks for other values;
2. The fundamental cognitive difficulty humans have in incorporating probability and uncertainty into their thinking; and
3. The difficulty of not knowing anything definite about the future.

[1]This information is the full peer reviewed and completed reports currently being approved for release by TLG. The CSG has been receiving the information in these reports via presentations and workshop sessions.

[2] For example, in Canterbury the Selwyn Waihora sub-regional plan is similar to HRWO in that the water quality in the catchment is over allocated, and the Council decision has specified rules that require phased in contaminant reductions.

One way of making decisions under uncertainty is to try to make the policy mix as adaptive as possible. This means the CSG would be looking for new property-level rules that do not cause irreversible losses for the environment[3] or people and communities affected.

In this case the approach would be to give people fair warning about what is coming while acknowledging that the detail is likely to change as we assess new information. CSG has noted that pathways to achieve the Vision and Strategy can be spelt out in RMA documents and also in changes to legislation. They have made a start on how a staged approach would be reflected in Waikato Regional Plan Change 1 Waikato and Waipa River catchments (the Plan Change)[4] . A Plan Change that seeks to be adaptive would set out:

- long term outcomes (in objectives / environmental results anticipated)
- what is to be achieved in the short term (in objectives)
- pathway (in policies and non-regulatory methods)
- when and how reviews would occur (in policies and non-regulatory methods)
- changes to activities that affect water (permitted activity rules and consented activities)

3.3 Waikato River iwi Outcome statement and principles for implementing the Vision and Strategy

At CSG on July 2nd and 3rd 2015, staff from Waikato River iwi presented a paper dated July 2015, that set out an outcome statement, principles for achieving it, and for each, an associated table that noted which Vision and Strategy objective(s) were most relevant and a commentary of what success would look like.

Attachment 1 contains some points that both the sub-group and the River iwi paper have covered. The full paper is listed on the CSG portal.

3.4 Policy Selection Criteria and initial allocation principles

Making decisions under uncertainty is a challenge for the CSG. The policy selection criteria were developed early in the CSG process to help inform choices between policy options. Attachment 2 sets out the CSG summary notes about criteria considered relevant to allocation when they assessed four broad nitrogen allocation methods (historical allocation, averaging, sector averaging and natural capital)[5]. Allocation principles have also been discussed at a national level. Attachment 3 sets out an excerpt of the recently released Land and Water forum report commentary on allocation.

[3] The CSG has consulted on a catchment-wide rule that prevents any more pine to pasture conversion. Discharges from land that was once forest and is now dairy farms is not irreversible, but at least in the short term, there are strong socio-political expectations to allow it to continue under pasture.

[4] CSG has already defined some narrative objectives and set out a staged approach in the objectives. See Waikato Regional Council 2015. Framing the steps to achieve the Vision and Strategy. Agreement and Approval report to CSG Doc #3538762 dated 25 September 2015.

[5] See Waikato Regional Council 2015. Initial allocation options to permit discharges of contaminants at a property level and sharing the costs. Agreement and Approval report to CSG 14. Document #3109567. Dated 27 July 2015.

3.5 Process for developing Principles and Options for managing within limits

This section of the report proposes that the CSG takes stock of where the project is at and maps out what to do next. Agreeing on some principles for managing within limits and using these to develop broad options for managing within limits will help to guide how the Plan Change should be written. The policy writing team need guidance about what a staged approach will mean for directly affected landholders, and what information is most important.

Process steps:

1. Set and agree water quality limits
2. Develop and agree 'managing to limits' principles
3. Develop broad options/strategy to deliver 'managing to limits' principles

Each of these steps is discussed below, along with progress made to date.

1. Set and agree water quality limits and targets

CSG has chosen to model a step-wise approach to achieve scenario 1. Before limits and targets can be confirmed and written in the Plan Change the CSG needs to continue its work on:

i. Defining the long term water quality outcome. The Plan Change template has some draft wording. It describes the water body's state in 80 years. The CSG needs to spell out what a Regional Plan can do to restore of the health and wellbeing of the Waikato River over time by employing a staged approach.

ii. Setting limits to achieve the first stage of the water quality outcome. The CSG has had some ideas[6] about how this could be defined, both with reference to numerical attribute bands, and as a narrative.

iii. Confirm what scale the limits and targets are set at for each attribute (FMU or sub FMU) and how these relate to actions on the land[7].

2. Develop and agree 'managing to limits' principles

A sub-set of the Policy Selection Criteria have been used in an earlier CSG workshop on allocation. The Waikato River iwi have presented a July 2015 outcome statement and principles document. See attachments 1 and 2.

Ideas discussed at CSG sub-group meetings and CSG workshops, that could be used as managing to limits principles, include:

> *Principle: 'Good Management Practice' should be mandatory and landholders who are already operating under good management practice[8] should be acknowledged.*

[6] There has been discussion at CSG about how CSG will define 10% toward scenario 1. For instance, it was suggested that it could focus on changes made on the land, as well as changes measured in water bodies. This idea is taken a step further in Option 2 of this report.

[7] CSG work to date will be used in a "Setting Plan Change water quality limits and targets" report to CSG (in prep) for the 18-19th December CSG meeting from policy and technical staff.

[8] Noting that good management practice has not been defined by the CSG. It is not defined in the Waikato Regional Plan. The way it has been referred to in sub-group meetings is that GMP means landholders undertake activities in a way that is "good

Principle: Allow some development capacity for underdeveloped land – this could be for Maori-held lands that for historical reasons have not been able to develop.

Strategies to achieve this that the CSG have discussed include;

1. To allow some landholders development opportunities, other landholders reduce contaminants by more

2. Allow for some increase in nitrogen while other contaminants are managed more stringently (e.g. through use of wide riparian buffers, sediment traps etc).

3. Options to deliver 'managing to limits' principles

Once the CSG are clear on the principles they want to follow, these can be used to assess and add to the broad options or strategies below. Then detailed objectives, policies, methods and rules are written to reflect this.

Two options are proposed. They are based on the concepts that have been talked about in CSG and the sub-group. CSG have discussed, but not explicitly decided in an approval report, whether they were going to allow additional development rights for Maori-held land.

The common element in the options below is:

To allow some landholders economic development opportunities within catchment limits, other landholders reduce contaminants to allow for this.

Option 1

Achieve a 10% step toward Scenario 1 that requires property-level reductions from 2016, and allows some people to increase

The overall strategy in option 1 is to set the contaminant reductions and increases so that the water quality outcome is met with some opportunity for underdeveloped land to increase discharges. Elements in this option are:

a) A regulatory approach that applies to everyone in 2016, that includes numerical property-level limits for nitrogen.

b) Some Maori-held land is allowed to develop (discharge more contaminants than currently). Development could include:
   - Calculating the total amount, up to an environmental footprint that assumes farming as the most profitable land use, but at a leaching rate that builds in advanced mitigation practices plus innovation
   - With the total amount of this development right defined by CSG in the first instance, in discussion with river iwi

practice for their sector", In other words a landholder can intensify but do so using GMP. This may be counter to the behaviour change sought.

- Allowing nitrogen development rights to move downstream but stay within an FMU[9]

c) All other landholders must reduce contaminants. The amount is defined by CSG[10].

d) Property plans are required in addition to catchment-wide rules.

e) Increases and decreases of contaminants at a property level will need to be tracked.

f) CSG defines the initial allocation of contaminants and the amount that must be reduced. It is likely resource consents and numerical property limits for nitrogen will be required.

Implications of Option 1
This option means the CSG will have to resolve how to track increases and decreases of contaminant discharges by their March 2nd-3rd meeting (finalise the policy mix and deliver it to HRWO Committee).

Option 2

Transition to Option 1 by getting everyone ready for change using property plans and catchment-wide rules.

The overall strategy in Option 2 is to signal (in objectives and policies) that the long term outcome and pathway will be Option 1 or similar, and use the 2016 plan change as a first stage. It includes:

a) A regulatory approach that applies to everyone in 2016.

b) Property plans are required in addition to catchment-wide rules[11]. Good management practice is mandatory and baseline/benchmarking is required using a property plan.

c) CSG defines a 'transitional' initial allocation of responsibility for reductions/ allowance for increases that lasts until Option 1 is ready to roll out. There would be a timeframe and sequencing for the transition to the longer term allocation of rights to discharge contaminants. This would guide those preparing the property plans as to the degree of change needed in the first ten year period, while signalling the degree of further change required in the next period to meet the next limit.

d) Methods in the Plan Change spell out plan review processes.

e) Research focused on new technologies, mitigations and innovation, including;

- Technical information about water quality implications of options for allocation of rights to discharge at different spatial scales[12]

[9] This option is 'spatially constrained' –the initial comment from TLG (to be discussed further if this options is progressed) is that the offset would need to occur in the same FMU for N and P and the same sub-catchment for E.coli and sediment the way the limits have been currently defined by the CSG (i.e. no decline in attribute band at any monitoring point).

[10] For instance, reductions could be required to be an equivalent amount to that allowed for Maori-held land, on top of the reductions that will be staged in over 80 years to meet scenario 1.

[11] The amount of improvement from rolling out catchment wide rules everywhere hasn't been modelled by TLG

[12] For instance, at a CSG meeting 23-24 November, Bryce Cooper TLG, was asked about land Use capability as used in the Horizons one plan. Bryce introduced this concept to the whole CSG at last meeting as being what the heat maps are based on (when asked if they represented natural capital). He described it as a combination of natural factors on the land and what limits/ bands you are trying to meet in the water. It relates to spatial variability. In a personal Communication 29

- TLG modelled mitigations that are not currently widely used (e.g. constructed wetlands)
- How the Overseer model can better account for mitigations and all land uses.

f) The Plan Change sets out what is coming, including how responsibility for reductions will be allocated in the future, but stops short of putting this in rules that have immediate effect.

Implications of Option 2
This option means that the CSG will have to resolve how they can give people confidence that significant progress is being made toward achieving the Vision and Strategy. This includes the water quality outcome and the need to ensure the Plan Change doesn't unreasonably restrict future development of Maori-held land.

Rules could be written in the Plan Change that do not come into effect for five - ten years. These sorts of clear signals about the transition to stricter limits for sediment, E.coli and phosphorus, and allocation of rights to nitrogen will be important for resource users.

The CSG have been committed to achieving 10% of the journey to the water quality outcomes in ten years, and have consulted on this with public. However, the recent sub-group work has highlighted the difficulty of achieving this within ten years. CSG also wants to allow increases in discharges on some land at the same time. To make all this work in a 2016 Plan Change, it is possible the CSG will need to re-define what it means about a 10% step toward scenario 1. For instance, the behaviour change on the land (property plans in place, no more land conversions) may be a more important focus than changes measured in water bodies. Reaching the 25% step would take longer than the CSG current idea while new technologies, mitigations and innovation is developed.

4 CSG sub-group progress

CSG sub-group process

A CSG sub-group met for the fourth time[13] on 18 November 2015. All CSG members were invited to attend. Those attending included the representatives for dairy (Rick Pridmore, George Moss), drystock (James Bailey), rural professionals (Phil Journeaux) and rural advocacy (James Houghton), representative for Māori interests Weo Maag, energy (Stephen Colson), community representatives (Gwyn Verkerk, Jason Sebastian) and delegates for some of the above sectors Graeme Gleeson, Charlotte Rutherford and Sally Millar.

CSG sub-group were assisted by Helen Ritchie and WRC policy, consents and extension staff. Bryce Cooper from the Technical Leaders Group (TLG) attended.

The sub-group has widened its focus to include sediment and microbes, as well as nitrogen and phosphorus.

The day before the meeting, the facilitator Helen Ritchie emailed the meeting purpose and preparation notes to attendees (see Attachment 4).

The 18th November CSG sub-group purpose was:

October 2015, Bryce Cooper noted that he preferred the idea of developing a concept he called 'land suitability' which is an enhanced version of land use capability and natural capital approaches because it is driven by water quality limits not by limits on productive potential of the land which can be quite different.

[13] Members had volunteered at CSG 15 in August, and the sub-group met on 9th September and 7th October, reporting back to the CSG on 21st September and 13th October respectively.

To work out a process for determining reductions in each contaminant in each FMU – firstly at FMU scale, then at property scale, to take back to the CSG and inform how we run our December meetings. These meetings will need to grapple with who has to reduce/ any allowance for intensification.

The sub-group used catchment load information, and focused on geographic differences between the 74 subcatchments. The intent was to use TLG and WRC mapped information to understand:

- Roughly how much land is held by Maori in multiple title and where it is,
- How the land in each subcatchment is currently used,
- Spatial differences in base loads and reductions required to achieve limits

The sub-group reported back verbally to the CSG at their 23-24th November workshop.

This report summarises the sub-group findings from the 18th November and the CSG discussion on 23rd November. It includes a summary of information from the Technical Leaders Group on the modelled spatial distribution of contaminant loads that was discussed at the sub-group and then by CSG at their 23rd November meeting.

4.1 CSG sub-group discussion of technical information

The CSG sub-group has discussed the possible uses of Overseer and the context for its use[14]. In their second meeting[15] they felt that property-level nutrient reductions might be best approached in a series of steps that could be described as 'getting everyone ready to make reductions'. They came up with a diagram (Figure 1) that showed two main options for reducing nutrient at a property level.

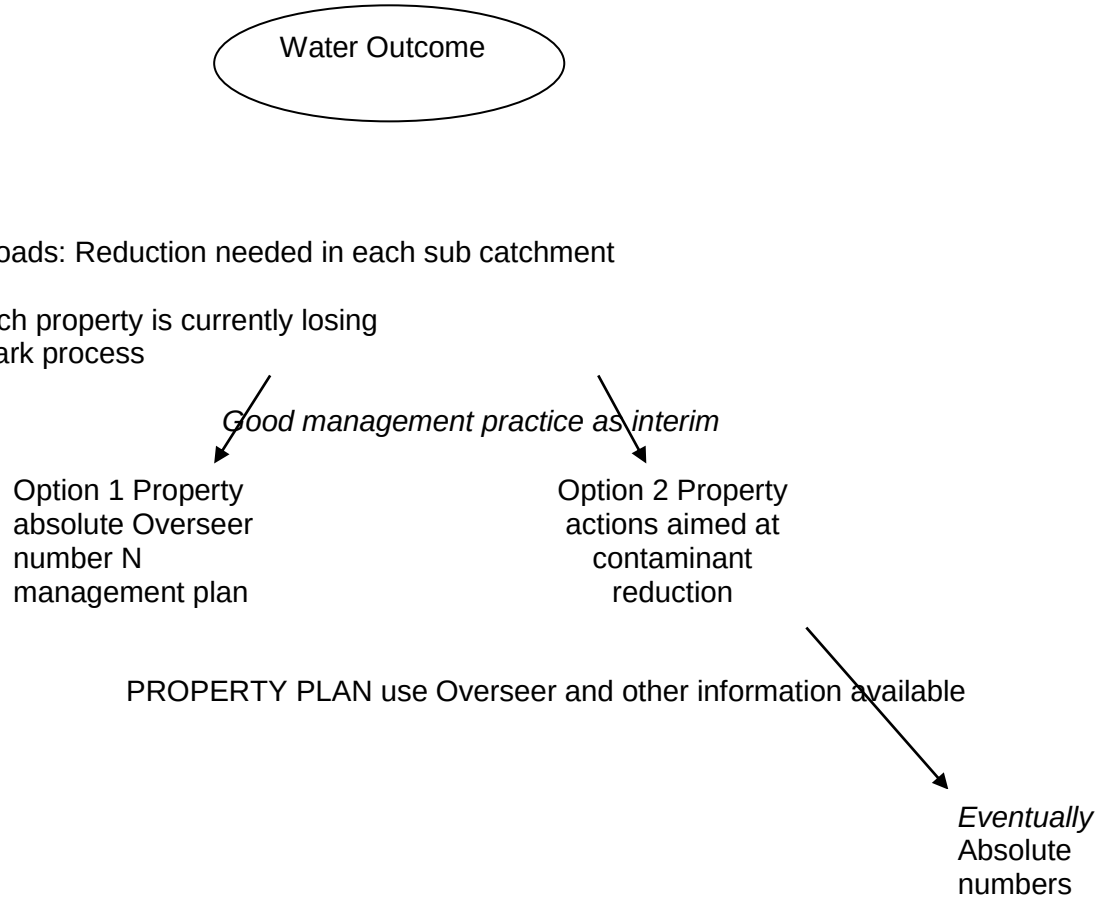
Both options require that property owners first need to demonstrate good management practice and eventually were held to a limit on their property, which was written as a numerical limit or 'absolute number' (kilograms of nitrogen).

Option 2 recognises that transition to numerical limits is needed, and that property plans with actions and timeframes could be developed that use the Overseer model and other technically justified information (for instance, so that landowners could put in a constructed wetland and be confident their contaminant reductions were accounted for).

[14] The importance of property plans to achieve nutrient limits, where overseer model fits, that getting people to good management practice and spatial variability is important to start with

[15] See report to CSG entitled CSG subgroup: Managing nitrogen and phosphorus at a property-level. Doc #3574906 dated 9 October 2015.

Figure 1 Summary of how CSG sub-group options fit together



Option 2 in Figure 1 is a phased approach towards increasing specificity in requiring nitrogen reductions at a property level. The sub-group didn't define the timeframe for these phases to occur.

The third and fourth sub-group meetings have focused on how to design a process for determining the contaminant reductions needed (and any allowance for increase) in sub-catchments (23rd October, 18th November)

4.2 Prioritising reductions in some parts of the catchment

The sub-group wanted to consider options to prioritise where contaminant reductions should take place. Spatial considerations were important to the sub-group because they believed that where you are in the catchment could make a difference to the amount of reduction in contaminant you will have to make i.e. How could we prioritise more reductions in some places?

Maps were provided by WRC staff as requested via the TLG, using TLG data at the sub-group meeting on 18th November (subcatchment loads by contaminant needing to be removed at the 25% step toward achieving scenario one, both in total and as a per hectare amount). TLG then refined the data and provided more maps with forestry land excluded at CSG19 on the 23rd November. The maps captured the spatial difference, showing where in the catchment base contaminant loads are higher, and where more change on land is

required to meet the 25% step towards Scenario 1. Maps of Land cover and current WRC information about land ownership was also provided (Maori owned land in multiple title).

The sub-group and the CSG considered how this information can inform their approach to allocating responsibility for change. More information was requested (the same data but with point sources removed).

See notes of the meeting on 18th November (attachment 5)

Policy team response to CSG sub-group: How priorities could be written into a Plan Change

The CSG have not made any decision on how to prioritise contaminant reductions in the Plan Change. Section 3 of this report sets out some ideas for how to approach this topic.

Both the CSG (on 23rd and 24th November) and the sub-group (in their last two meetings 23 October and 18 November) have discussed how information about contaminant loads in the 74 subcatchments could be used. This data has been put on maps was shown visually and referred to as 'heat maps.' They thought the heat map information would form a useful means to prioritise implementation. However, there were concerns that setting policy at that scale (74 sub-catchments) risks creating too much complexity and unintended consequences in behaviour.

From a plan writing point of view, it is possible to approach spatial differences either by:

1. Rules that differ between sub-catchments or Freshwater Management Units or;

2. No difference in methods/rules; instead differ in resource and/or timing to implement. Spatial differences are set aside[16] in terms of policy and but implementation effort is focused in some areas first. e.g. Waipa catchment Plan lists two 'priority' sub catchments where WRC will start first, and work intensively with landowners to develop property plans to minimise erosion risk. All other sub-catchments will be done in the same way at a later date, or;

3. No difference in methods/rules in 2016 but differences signalled in years to come. (e.g. Canterbury Regional Land and Water Plan has the same requirements for all farms for a short period then differing dates for when consent applications must be received by the Council, depending where the property is).

There is likely to be differences in efficiency of each of the options. Each of these options assume that there is reliable and acceptable information available, however each requires different information depending on the criteria being used to determine the methods used (actions) or timing. Equity impacts differ depending on which options are picked.

From a technical perspective, Approach 1) has the benefit of targeting actions to those areas of the catchment having the most effect on achieving water quality outcomes. The CSG will have to decide if there is sufficient certainty and policy efficiency to justify what is being asked of people.

Approach 2) assumes we can set aside spatial difference and still meet the desired limits and targets i.e. water quality outcomes are met regardless of where in the catchment the contaminant enters water.

Approach 3) may be used when we know there are important spatial differences in the effect of contaminant discharges at different points in the catchment, but the CSG needs to consider if we are not certain enough to write rules that affect people's businesses[17]. This could be described as "making a start using our existing knowledge".

4.4. Complexity of spatial differences

The CSG sub-group meeting #2 discussed the tension between wanting to start reducing contaminants to achieve the Vision and Strategy, whilst remembering we don't yet have detail around:

- what landowners are doing now
- how to allocate property-level limits and link these to actions to effect reductions in discharges

Instead, we have an indication of what reduces discharges by sub-catchment (in aggregate). The sub-group noted that the Sustainable Milk Plan work in the Upper Waikato was useful, but considerable resources were needed to get baseline information and a set of actions for dairy farms to get to good management practice. This provides an idea of the size of the job ahead.

Discussion at CSG19 on November 23/24 following the presentation of the 'heat maps' confirmed earlier sub-group thinking that setting policy at the scale of 74 sub-catchments would be overly complex, but that the heat maps could usefully guide prioritisation of implementation, focus community and catchment conversations, and help to identify which contaminants were of greatest importance in different parts of the catchment.

On 18th November, the sub-group agreed CSG needs to define our ideal 'end point' of an allocation regime (time to be determined) including headroom and a staged process along the way. This was confirmed by the CSG at their 23/24 November meeting.

5 Summary

The CSG wants to do a focused sector consultation in February about what the new policy and rule approach might mean for directly affected landholders. This will be used to refine the policy mix that CSG will deliver to the HRWO Committee in March. Then detailed plan wording and section 32 analysis can be written.

This report sets out where the sub-group has got to, and proposes a way to take this a step further. The catchment is over-allocated from a water quality point of view. The CSG wants to investigate development capacity for underdeveloped land – particularly Maori-held lands that for historical reasons have not been able to develop.

Several broad options are proposed. They are based on the concepts that have been talked about in CSG and the sub-group. The overall strategy in option 1 is to set the contaminant reductions and increases in such a way that the water quality outcome is met while still allowing for some intensification on underdeveloped land. The second option signals this will have to happen in future, with the 2016 Plan Change focusing on actions on the land that halt the upwards creep of contaminant discharges, and getting everyone ready for bigger changes to come.

[17] This was the case for the Taupo nitrogen rules, where all landowners are subject to same rules, despite technical discussions during the plan development that suggested future policy allowing higher nitrogen leaching land development that was offset by wetland removal of nitrogen to the atmosphere.

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Attachment 1 - Key points from a July 2105 Waikato River iwi Outcome Statement and principles for implementing the Vision and Strategy

Attachment 2 - Policy Selection criteria and CSG August 2015 assessment of nitrogen allocation approaches

Attachment 3 - Excerpt from Fourth Land and Water Forum report – Allocation

Attachment 4 - Background information sent to meeting attendees for 18 November CSG sub-group.

Attachment 5 - Meeting Notes from subgroup discussion on 18/11/15. Butcher paper and whiteboard notes taken by Helen Ritchie

6 References

Collaborative Stakeholder Group Workshop 14 Notes. 10th and 11th August 2015, DM #3471459.

Collaborative Stakeholder Group Workshop 17 Notes. 13th and 14th October 2015, DM #

Elliot, S. NIWA Powerpoint presentation to 21 September CSG workshop

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Waikato Regional Council 2015. Policy options for sediment, microbes, nitrogen and phosphorus. Agreement and Approval report dated 22 June 2015. DM #3425911.

Waikato Regional Council 2015. Policy option of a property-level limit for nitrogen and phosphorus. Agreement and Approval report to CSG Document #3476854 dated 24 August 2015.

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Waikato Regional Council 2105. Options for using Overseer model to manage nitrogen and phosphorus at a property-level. Agreement and Approval report to CSG. Doc #3507568 dated 17 September 2015.

Waikato Regional Council 2015. Report to CSG entitled Options for Tailored Property Plans. Doc #3563987 dated 9th October 2015.

Waikato Regional Council 2015. CSG subgroup: Managing nitrogen and phosphorus at a property-level. Agreement and Approval report to CSG. Doc #3574906 dated 9 October 2015

Waikato River Iwi paper dated July 2015 and entitled “Outcome statement and principles for implementing Te Ture Whaimana – the Vision and Strategy for the Waikato and Waipa Rivers”. Presented to CSG on 2-3rd July 2015.

WRC CSG workshop with Technical Leaders group on 21 October.

Attachment 1 Waikato River iwi Outcome Statement and principles for implementing the Vision and Strategy

At CSG on July 2nd and 3rd 2015, staff from Waikato River iwi presented a paper dated July 2015, that set out:

- An outcome statement
- Principles for achieving
- For each, an associated table that had explanation, which of the Vision and strategy objectives were most relevant and a commentary of what success would look like.

This paper was used by the CSG when deciding the future scenarios that they wanted the TLG to model. It also formed the basis for the first draft of some narrative Plan Change objectives.[18]

The sub-group has discussed many of the topics covered by the paper, including:

- Prevent further degradation, acknowledging a lag effect for nitrogen (page 5)
- While the new policy is being developed and confirmed, that new discharges shouldn't exacerbate existing over allocation
- That the precautionary approach includes preventing irreversibility of effects, especially where land is moving from low to high discharges
- That the timeframe is over several generations (80 years) but some gains could be made more rapidly
- Management of discharges needs to be flexible and adaptable to allow land uses the ability to modify practices over time...adopt good management practices to reduce discharge of contaminants (page 6)
- That multiple Maori owned land may require a different approach. The commentary from the paper is reproduced below (page 9):
  "The River iwi will need to carefully consider how the yet to be developed regional policy framework affects multiple Maori owned land. The plan change should also ensure that where land has not yet been developed or is undeveloped for various reasons (i.e., historic, Treaty, CNI) the policy framework does not unreasonably restrict the future development opportunities of the land.

  Any headroom that is created through the use of efficiency testing or good management practice should, as a matter of hierarchy, benefit: (i) the awa in phasing out over allocation and (ii) providing for the development potential of multiple Maori owned land and undeveloped land."(page9).

[18] See Report to CSG Plan Change template narrative objectives

Attachment 2 Policy Selection criteria and CSG August 2015 assessment of nitrogen allocation approaches

Policy Selection Criteria
Making decisions under uncertainty was acknowledged to be one of the challenges for CSG. The policy selection criteria were developed early in the CSG process to help inform choices between policy options. In the August CSG meeting, the CSG used some of these criteria considered relevant to allocation to assess four broad nitrogen allocation methods (historical allocation, averaging, sector averaging and natural capital)[19] .

Two of the criteria that are particularly relevant to managing within limits are:

Acceptable to the wider community
Does the policy:
• achieve sound principles for allocation?
• recognise efforts already made?
• Exhibit proportionality (those contributing to the problem contribute to the solution)?

Allows for flexibility and intergenerational land use
Does the policy:
• foster innovation?
• encourage positive actions being taken?
• allow for change and review as new information and issues arise?
• provide flexibility of future land use (including Treaty settlements land and multiple Māori owned land)?
• take account of complexity and difference between farming systems and farm enterprises?

The CSG did an assessment of allocation options against the policy selection criteria and a summary of this discussion is reproduced below. In particular they noted that a hybrid of the approaches was more in line with their criteria.

Summary - Allocation ideas – working list from CSG14
The following notes were taken by the facilitator Helen Ritchie at the CSG discussion in August 2015.

Principles from Policy Selection Criteria	Best options to meet each principle
Recognise efforts made	Another way e.g. capped grandparenting up to average
Realistic to implement, monitor, enforce	Averaging cheaper than rest
Flexibility for future	Natural capital – no presumption of current land use Another way – trading/ allocation set

[19] See report to CSG August 2015 entitled 'Allocation xx'

	aside for this
Minimise social disruption	Best – historical grandparenting. Worst – average/ha. Another way: Grandparent and good management Hybrid that recognises natural factors Plus % ramp back – except those who can't – could do extra to allow for new entrants. Plus market to trade
Exhibits proportionality	Not a grandparent or average per hectare Maybe average per sector or natural capital Another way – need to bring in GMP's
Takes account of complexity	Best - natural capital Worst - average/hectare Another way - trading Pragmatic approach, different farm systems have different issues – hybrid
Important additional principles	
• Transition from where things are to where you want to get to (to meet the limit) • Be cautious about compensating for lost future opportunity - Make exception for special cases separately	

Most promising options: (Needs to be a hybrid or a hybrid of a hybrid)

- Not average/per hectare
- Need to have a GMP/efficiency element
- Innovative ideas to look at: capped grandparenting within sector
- Grandparenting transitioning to a natural capital approach (What would be a suitable natural capital measure, and how closely matched is current land use to that?)
- Noted that if you want flexibility, must have trading
    - Then the allocation to high class land under a natural capital system may move (which defeats the purpose of a natural capital approach)

Attachment 3 Excerpt from Fourth Land and Water Forum report - Allocation

Land and Water Forum 2015. Fourth Report of the Land and Water Forum. Dated November 2015. Land and Water Trust. Retrieved from http://www.landandwater.org.nz/

Pages 46-47
We have discussed at length the question of how discharge allowances or caps should be distributed to rural land/users when transitioning to an allocative regime. We have not been able to reach full agreement on a general approach but there are a large number of elements on which we do agree, and we have decided to set them out along with those which we haven't been able to resolve.

We all agree the following points:

- Decisions on how discharge caps will be set and/or how allowances distributed should be taken at the outset of the regime. The way in which this is done will have to take account of catchment circumstances. It should be reviewed at regular intervals.

- All rural land which could be used for productive purposes should get an allocation for catchment accounting purposes reflecting the discharge from natural cover.8 The purpose of this allocation is to account for emissions that would occur if no productive activity were occurring on this land.

- Existing users should receive an initial transitional allocation based on their current level of discharges over a period agreed through a collaborative planning process.

- This amount would be set based on the assumption that they are operating at the level of catchment specific GMP decided in the catchment plan.

- Land and water users discharging above an agreed threshold would reduce their discharges over time to achieve the limit for the catchment as specified in the catchment plan.

- Land and water users discharging below an agreed threshold would not be obliged to make reductions other than the implementation of GMP discussed above, and could increase their discharges up to the agreed threshold.

- These adjustments would be scheduled in a plan, and the higher dischargers would make the larger contribution.

- To prevent an intensification of emissions prior to transition in order to secure a higher initial emissions allowance, persons who intensify land or water use in a manner that increases abstractions and/or contaminant loads should do so at their own risk - until such time as councils have clear rules in place in their plans to ensure that diffuse discharges do not exceed specified limits or will achieve reductions required to meet targets.

We have not been able to resolve the following issues:

- How should the threshold below which discharge rates do not have to be reduced be set? Some of us believe that this threshold should be set at the catchment average for "like" land. Others consider it should be negotiated catchment by catchment.

- All are prepared to take factors beyond current levels of discharges on individual properties into account. Some of us however would give a higher weighting to land characteristics, including its natural production capacity and/or vulnerability to leaching.

- Some of us consider that at least a proportion of allocations to discharge above natural cover should also be attached to the land. This would have implications for transfer - allocations attached to the land could not be permanently transferred. (Some believe that longer term transfers, perhaps through a lease, could still encourage these shifts) Whether and to what extent allocations are attached to the land would have implications for how provision is made to resolve the rights and interests of iwi.

The differences between us are not absolute. Those who place a relatively higher premium on minimising economic impacts to existing businesses and communities and the protection of current investment prefer allocation approaches that recognise this. Those who place a relatively higher weighting on allocation approaches that promote the flexible use of all rural production land, encourage specific uses to be located on land with the most appropriate natural productive and assimilative capacity prefer different approaches. Both groups cite long-term economic welfare in favour of their approaches.

Attachment 4 Background information sent to meeting attendees for 18 November CSG sub-group

This document has been prepared for the sub-group by facilitator Helen Ritchie, and tracks the three meetings the CSG nutrient limits/Overseer sub-group has had (9 September, 6 and 23 October).

This document is in addition to the reports prepared for CSG by policy staff (those reports are intended as an overview of the sub-group discussion for people who haven't attended the sub-group meetings).

Purpose of 18 November sub-group meeting: To work out a process for determining reductions in each contaminant in each FMU – firstly at FMU scale, then at property scale, to take back to the CSG and inform how we run our December meetings. These meetings will need to grapple with who has to reduce/ any allowance for intensification.

Practical result: A recommended process for the CSG to work through these discussions in December.

Where we are at:

- Our first meeting explored the benefits and constraints of using Overseer in different ways
- We said Overseer would always be used and we would always need to benchmark; difference is whether you hold people to a number generated by Overseer or to a property plan informed by Overseer
- We said that use could depend on the size of the problem – holding people to a hard limit could bring about greater reductions
- We noted issues with Overseer are the changing versions, that not all mitigations or land uses are dealt with well/ at all by Overseer
- We noted pros of holding people to a hard number is it allows trading and may give the community greater confidence change will occur
- We said P is more like a collection of point sources while N is truly diffuse and actions for P are similar to those for microbes and sediment and P could be managed through best practices (catchment-wide rules and property plans to identify CSAs, informed by nutrient budgets to identify optimum Olsen P and P fertiliser management).
- CSG has identified potential limits and targets
    - 10% of the change required to meet Scenario 1 in 10 years
    - 25% in 20 years etc
- Implications of these limits and targets based on Scenario 1:
    - Catchments discharging more (within an FMU) will have more to do (larger gap from current state)
    - Catchments in different FMUs may have different band as their limit (could affect size of gap from current state)
    - TN and TP are not set at 74 sub-catchments, other attributes are
    - Model provides one way to achieve the Scenario, and shows a steady state with 100% adoption and load to come counted in
    - In some sub-catchments, loads of nitrogen to come are high and the model couldn't mitigate all of it in the steps on the way. Therefore nitrogen will rise in some places. The question then, is whether landowners should be required to mitigate in other sub-catchments to hold measured total nitrogen in the water

- This group has discussed
    - Stage 1 - everyone doing GMP (more equitable) + stop land conversion + some edge of field work = ~7% reduction
    - Stage 2 – how much further reduction required?
- What does this mean for us?
    - How to achieve 10% in 10 yrs while we signal 25%
    - How to achieve 25% in 20 yrs while we signal 50%
    - How to achieve 50% in 60 years
- Staged approach put to CSG; accepted for community engagement:

Property limits

- Tending towards Option 2
- Benchmark (take average over 3 – 5 years) to know what everyone's doing
- Who has to reduce is another discussion
    - Don't reward high emitters
    - Those emitting less may have little room to move
    - Concern not to punish those with neutral/ positive impact
- Need a system where those discharging more reduce sharper

Could phase over time:

- First years –
    - Benchmarking
    - Establish real catchment loads
    - Set reductions required
- Prepare the plans
    - Achieve a % reduction
- Move to a hard number over time

CSG made further comments:

- How do we know we've changed enough to meet the V and S?
- Clarity for community - would still try and quantify all the reductions and aggregate those
- There are pros and cons of trading
- Investment – property plan can help plan for later steps
- Both options need auditing
- Need to put a hold on intensification in the meantime
- Concern that benchmark + hold intensification + reduce is grandparenting by default

Questions addressed at our last meeting on Oct 23 (and still live)

- How to allocate responsibility at property level?
- How to ensure that sufficient change will occur at property level to achieve reductions required at FMU level?
- How to create headroom/ allow for underdeveloped land to intensify?

On 23 October, this sub-group agreed that landowners, and those helping to prepare property plans, will want to have an idea of the degree of change that is required of them from 2016 onwards. If there is to be a staged approach to reductions, landowners need to know, so they can plan for it.

The sub-group identified some high level options for a process:

1. Keeping the level of complexity from the modelling (i.e. the spatial variability in where mitigation need to occur in relation the loads in the water) and do this for 74 different sub-catchments OR

2. Simplifying it back to a certain percentage reduction (per FMU) in the first plan change, AND/OR
3. Identifying the hotspots and say “in these catchments you have to go further” than the baseline percentage.

Points made:

- Determine FMU-wide percentages so they focus on the contaminants in each FMU. Could subdivide further but would need good reason. Use the heat maps to guide where to start first
- Heat map can also help with risk assessment at a farm level (first part of planning)
- Need to be clear what the next stages are
- Extra catchment-wide mitigations like wetlands could be used in areas with more intensity of reduction required (using public money)
- Headroom – implies others have to reduce more
    - Through individuals’ actions to reduce
    - Or catchment-scale mitigation
- Get information on how much land and how much intensification is wanted. Also depends on where and by when. LAWF may recommend that regional councils give headroom to iwi first
- Would it be possible to allow some increase in N, knowing what we do about nutrient sensitivity in the lakes?
  → would this be possible under the NPS/V & S? Noting swimmability is also affected by conversion (E. coli)
- Need room for within-property shifts in intensity for drystock/dairy as optimisation of land use occurs
  → focus on reductions, not intensifications
- Real conversations are about who has to do what

Focus for this meeting

Given the above, we will continue discussion on:

What are the options and mechanisms to prioritise where nutrient reductions should take place?

We will be thinking about spatial considerations i.e. How could we prioritise more reductions in some places? (Does where you are in the catchment make a difference to the amount of reduction in contaminant you will have to make?)
We will relate this back to property planning i.e. how will a certified property planner know the actions specified would be enough on this particular property?

We will bring this information back to the upcoming CSG meetings in November and December where we will start to have discussions about allocating responsibility to change, and options for underdeveloped land.

Focus question:

- What could be a process to figure out the percentage reduction in each contaminant per FMU (starting with average per FMU and then what each landowner would have to achieve)?
  (Bearing in mind the desire for some to be able to intensify)

Sources of information:

- TLG ‘heat maps’ showing where the largest contaminant reductions need to occur, based on load data in spreadsheets
- Maps showing location of iwi-owned land and land use

Attachment 5 Meeting notes of a sub-group of the Collaborative Stakeholder Group

Notes from the Overseer subgroup meeting #4

Date: 18 November 2015, 9.00am –12pm
Location: Fellowship Lounge, The Link Community Centre, Te Aroha Street, Hamilton

Attendees:

CSG representatives and delegates	Weo Maag, Charlotte Rutherford, Gwyn Verkerk, Sally Millar, James Bailey, George Moss, Phil Journeaux, Rick Pridmore, James Houghton, Jason Sebastian, Stephen Colson, Graeme Gleeson
TLG	Bryce Cooper
WRC staff	Justine Young (part), Ruth Lourey, Emma Reed, Chris McLay, Mark Brockelsby, Jon Palmer, Jo Bromley (part), Vicki Carruthers
Staff	Billy Brough
Facilitator	Helen Ritchie
Information provided	1. Series of maps by contaminant and all four contaminants to show where reductions need to occur based on load data 2. Report on CSG Overseer subgroup meeting number 3 DM#360517 3. Report on extent of Maori Owned Land/ larger scale maps DM#3609413 4. Report on land cover and farm type and numbers of farms by FMU and sub-catchments DM#3615475

The focus question for this session:
What could be a process to figure out the percentage reduction required in each contaminant, in each Freshwater Management Unit (FMU) (average per FMU and then per landowner)?
(Bearing in mind the desire for some to be able to intensify)

Purpose
To work out a process for determining reductions in each contaminant
→per FMU
→at property scale
to inform how we can run our December Collaborative Stakeholder Group conversations

Discussion points
Is there a 'weighting' between the four contaminants to achieve the Vision and Strategy?

Two ways to look at success:

- More sites meet the limit you are aiming for
  - Go to sites that are 'almost there' and push them over the line (which could include targeting some yellow areas on the maps as well as some red ones). For example move sites from band B to A.

- 25% of way to meeting the limits everywhere
  - Improve at all sites
    →Do things everywhere (yellow area on the maps)
    →In some areas, do more (orange/red on the maps)

  - Focus on those that are 'D' but close to 'C' to meet NOF. (This is a subset of the first approach above i.e. Focus on sites that almost there, but particularly those that do not currently meet a Minimum Acceptable Standard/ are D band).

Cumulative effects

- Are we better to focus upstream because this will have a flow-on effect further down?
- Noting that the 'combined score' map shows priorities are "around the edges"
- Remembering also the lowland lakes will also required more effort (but this is not captured in the maps provided).

If we decide to prioritise spatially

- Is this purely deciding on timing of implementation OR
- Are we trying to do more in some places AND IF SO
- Is this per FMU scale or finer scale (74 sub-catchments)/pick some of the 74?
- Does this vary per contaminant?
- How do we reconcile "natural factors"/capital and equity issues of saying "you have to do more because of where you live"

What patterns did we see?

- Paint chart of current state.
  - To move lower river sites we would have to work all the way up the catchment
- N chart – yellow (on the maps provided) in upper catchment per ha (current) – and in 25% (maps). Would have expected these areas to show up as requiring more reduction.
  - Due to area in forestry? – Need to see maps with forestry areas excluded
- Across catchment, to sell the plan, everyone will have to take part.
- Heat maps might give signals as to where to invest or not (due diligence).
- Use maps to prioritise time of implementation/ where to site bottom of catchment mitigations.

Need to work data through to know roughly how much reduction is needed from manageable sources (defined as farm/horticultural and point sources) in each FMU for each contaminant. Separate out the point sources from farm/horticultural.

Maps summarise "effort required per sub-catchment" but at the moment don't show effort required at farm level, because data doesn't exclude forestry.

Trying to deal with catchment boundaries where the policy differs across boundaries makes life difficult, but sub-catchments could guide timing of implementation.

Would we divide FMUs in e.g. 2 or 3 bits (clumping of sub-catchments)?

As policy gets more draconian in small areas →get bizarre behaviours

Can use a community engagement process to try and move some further.

Long-term planning is more relevant to point sources' consent renewals/ reinvestment cycles - can lead to shuffling of those cards vs. how they are seen in the step-wise scenarios.
Maps could inform the process of seeing what can happen, when for point sources.

Point sources information:
OPUS report (part of JEV) looks at municipal discharges and optimal profiles to reduce those and capital investment).
→cost – abatement curves used in scenario model
→point sources tend to come in at later stages of achieving scenario (bang for buck) (other than some municipals and one industry).
Noting point sources across catchment represent 7% of total N and 18% of total P.

Figuring out who has to do what:

- Calculate manageable source reduction figure per FMU.
  - Point sources, at sub-catchment and FMU.
  - Farm/horticultural – per ha reduction.
  - Question around forestry – can they do anything more than currently to manage P/sediment? This group did not think there was much more to do in terms of policy.
  - However, model assumes their current practice will do as much as is possible (assuming rules are followed 100%).
  - For forestry, we might have more focus on implementing current rules, especially as more forestry might start to occur as farm forestry blocks

.
Do have to consider forestry conversion potential for future.

Assume we know a rough percentage reduction required for each contaminant for each FMU.
How do we then have the debate?

Take a theoretical catchment and figure out a 'solution' and then figure out what the policy would be.
Use a couple of principles we can all agree e.g. we want everyone doing Good Management Practice GMP (most efficient they could be) → need some information on what bell curve (adoption curve currently for GMP) is for farm/forestry types.
We don't want to penalise those who are already doing well.

Need to define our ideal 'end point' of an allocation regime (time to be determined) including headroom and a staged process along the way.

Land and Water Forum (LAWF) and Bay of Plenty (BOP) information (on allocation) good reading. LAWF report on allocation due end of November 2015.

When you make allocation a property right it's dangerous.

You have to figure out a pathway to make the required reductions/+ create required headroom.
→Allocating an obligation (not a right) and working out a mechanism for that.